

C-6.4 Carry out calculations to find the concentration of solutions in terms of molarity and percent weight (mass).

**Revised Taxonomy Level 3.2 C<sub>A</sub> Apply (carry out) procedural knowledge**  
**Students did not study this concept in physical science**

**It is essential for students to**

- ❖ Solve problems involving the Molarity of a solution (moles of solute per volume of solution) (moles/liter)
  - Molarity (M)
  - # moles of solute
  - Volume of solution
  - Mass of solute
- ❖ Determine the percent weight (mass) of a solution (mass of solute/mass of solution x 100) (%)

### **Assessment**

The revised taxonomy verb for this indicator is implement (apply), the major focus of assessment should be for students to show that they can “apply a procedure to an unfamiliar task”. The knowledge dimension of the indicator, procedural knowledge means “knowledge of subject-specific techniques and methods” In this case the procedure for quantitatively finding the concentration of a solution in terms of Molarity or percent weight. A key part of the assessment will be for students to show that they can apply the knowledge to a new situation, not just repeat problems which are familiar. This requires that students have a conceptual understanding of Molarity and percent weight.